ISCHNOCHITON DILATOSCULPTUS, A NEW SPECIES FROM FLORIDA (POLYPLACOPHORA: ISCHNOCHITONIDAE)

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My friend, Mr. Richard A. Van Belle, Sint-Niklaas, Belgium, showed to me two *Ischnochiton* specimens which he had received from collectors in Florida. One of them proved to be correctly identified by Van Belle as *Ischnochiton (I.) pseudovirgatus* Kaas, 1972. It is a fine, 7-valved, dried and flattened specimen, collected by Mr. A. Crovo at Long Reef, off Elliott Key, Florida, 18th August 1968, in the base of a "sea-fan", and sent to Van Belle by Mr. D. Steinke. The specimen, measuring 3.2 mm long, 1.8 mm wide, 0.6 mm high, is no. 2601 in the collection of Van Belle. In all respects it is identical to the holotype from Curaçao, and the single paratype from Aruba, Lesser Antilles.

Seven-valved specimens of Polyplacophora are rather rare, but well-known. *Acanthochitona crinita* (Pennant, 1777), and the holotype of *Callochiton septemvalvis* (Montagu, 1803) are abnormally seven-valved (*vide* Kaas, 1978).

The other specimen could not be identified as it differs from all known species of *Ischnochiton*. It was collected by Mr. R. Lyles in 1968, off Fort Lauderdale Beach, Florida, in a depth of 12 m. Although only one specimen was procured, its characteristics are decisive enough to attach a new name to it:

Ischnochiton dilatosculptus n. sp.
(Figs. 1-9)

Material: 1 specimen, dry. Off Fort Lauderdale Beach, Florida, U.S.A., 12 m. R. Lyles, leg., now in the Rijks Museum van Natuurlijke Historie, Leiden. Holotype 55382.

Diagnosis: Animal elongate oval, moderately elevated, hardly carinated, angle of divergence ±110°, the valves only slightly beaked, side slopes a little convex (Fig. 1). Head valve semicircular, quincuncially granulated, the anterior margin somewhat dentated by a row of large granules. Total length of animal: 14.5 mm; width 8.5 mm.

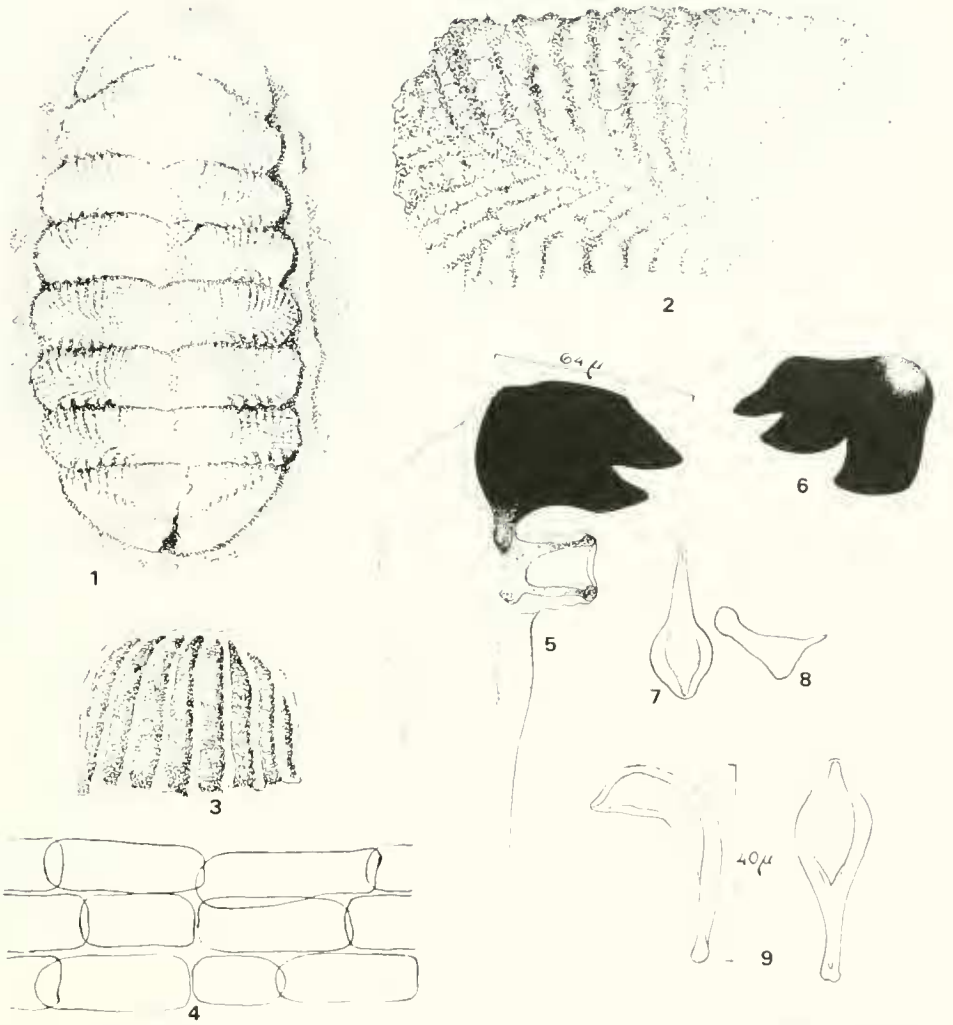
Intermediate valves (Fig. 2) not sharply divided into central and lateral areas as the latter are not raised, only marked by a sculptural division. The dorsal part of the central area is irregularly granulose, more or less reticulate. Towards the pleurae the granules rapidly increase in size, forming curved longitudinal chains, strongly converging close to the division between central and longitudinal areas, where they meet the chains of granules sculpturing these parts of the valves, which are diverging towards the anterior and side margins, thus giving the valves a fan-like, or feather-like, appearance. On the lateral areas the granules make the sutures dentate.

Mucro of the posterior valve subcentral, not very prominent, the back slope slightly concave. Antemucronal area sculptured like the central areas of the intermediate valves, postmucronal area like the head valve. Both areas are divided by a rib formed by larger granules.

The articulamentum is well-developed, porcelaneous, somewhat transparent; the color of the tegmentum showing through; apophyses evenly rounded, separated by a wide, bay-like sinus; insertion plates smooth, with 8 inequidistant slits in the anterior valve; 1-1 slits in the intermediate valves, and 11 slits in the posterior valve; the slit-rays well-marked, the eaves solid.

The tegmentum is cream-colored, with irregular light greenish gray spots, especially towards the side margins of the valves.

Girdle dorsally clothed with imbricating scales, 66 μ wide, 48 μ high, the base narrowly diamond-shaped; the strongly convex dorsal side with 8-10 strong, narrow riblets, converging towards the broadly rounded top of the scale; interstices twice as wide as the ribs (Fig.



FIGS. 1–9. Ischnochiton dilatosculptus *new species.* **1**, *Off Fort Lauderdale Beach, Florida. Holotype (12 mm);* **2**, *Left half of valve VI (×20);* **3**, *Dorsal girdle scale, 66 μ broad;* **4**, *Ventral girdle scales (the largest 48 μ × 16 μ);* **5**, *Major lateral radula tooth (side view);* **6**, *Cusp of major lateral radula tooth;* **7**, *Central tooth of radula;* **8**, *First lateral tooth of radula;* **9**, *Minor lateral tooth.*

3). There is no marginal fringe. Ventral side of girdle paved with radiating rows of rectangular flat scales, about 48 × 16 μ (Fig. 4).

Central tooth of the radula (Fig. 7) twice as long as wide, reversed pear-shaped at the base, distally sharply pointed, the second (major) lateral tooth with a strongly developed tridentate cusp (Figs. 5, 6) and an interior projection just below the cusp. Minor lateral tooth strongly curved, gradually widening distally, ending in a blunt point, non-cuspidate (Fig. 9).

Discussion: Ischnochiton (I.) dilatosculptus undoubtedly belongs to the group of *I. (I.) striolatus* (Gray, 1828), *erythronotus* (C. B. Adams, 1845), and *papillosus* (C. B. Adams, 1848), well known from the Caribbean region (including Florida and Bermuda), from which it markedly differs in its quite peculiar sculpture, the dif-

ferently, more sparsely ribbed dorsal girdle scales, and the differently shaped central radular tooth.

It is to be hoped that more specimens will turn up in due course, although I have the impression that it is rather rare in this well-investigated area.

LITERATURE CITED

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A NEW TROPICAL EASTERN PACIFIC OVULIDAE (GASTROPODA): *XANDAROVULA HAMMESI*

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In a recent review of the Ovulidae, Cate (1973) listed 7 species from the Panamic province (tropical west America). Since then, although more than 25 additional new taxa of ovulids have been proposed from Indo-Pacific and Caribbean waters (e.g., Azuma, 1972; Cate, 1974b, 1975, 1976a, and 1978; and Petuch, 1979), only one new species has been named from the Panamic region (Cate, 1976b). Emerson and Old (1965) had previously reported the Galapagan occurrence of *Pseudocypraea adamsonii*, an Indo-Pacific ovulid. To these tropical eastern Pacific ovulid species we add the following: 2 species from Panama, one known only from the type locality and the other a widely ranging taxon in the western Pacific:

Xandarovula hammesi
Bertsch & Bibbey, *sp. nov.*
(Figs. 1–6)

Description: Thin, white glossy shell, quite large for the genus; ovalish, with both ends pointed; bulbous in the middle; adapical terminal protrudes sharply, completely on right-half of shell, distinctly set off from the left side of the bulbous body whorl, abapical terminal much more gently narrowing along the left side; smooth except for extremely fine longitudinal growth striae, and faint, fine transverse line more prominent terminally and on the columella; outer lip evenly rounded, circular rather than oval; no lip callus; apertural opening comprises nearly 1/2 the total area of the ventral side; aperture terminals open slightly to the side adapically, but straight abapically (anteriorly); anterior columellar region thin and narrow, forming a fragile edge to the anterior gutter-shaped siphonal canal; posterior axis delicately tortuous, twisting a full 180° from its proximal juncture with the body whorl to its distal termination.

Measurements:

	Length	*Width*	
Holotype,	37 mm	19 mm	(Figs. 1 and 2)
Paratype,	31 mm	14 mm	(Figs. 3 and 4)
(Hammes' collection)	33 mm	17mm	(Figs. 5 and 6)

Type locality: All three specimens examined were collected in shrimp nets from about 1000 feet, off Cebaco Island (approx. 7°30'N; 81°30'W), Pacific coast of Panama, approximately in September of 1979. Holotype: San Diego Natural History Museum, Marine Inver-